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Keywords: Java, dynamic metrics, execution traces, optimization, profiling, pr

The hB-tree: a multiattribute indexing method with good guaranteed perforr David B. Lomet, Betty Salzberg

December 1990

ACM Transactions on Database Systems (TODS), Volume 1.

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A new multiattribute index structure called the hB-tree is introduced. It is der [15] but has additional desirable properties. The hB-tree internode search and analogous to the corresponding processes in B-trees [1]. The intranode proces the structure within nodes for very efficient searching. Node splitting requires nodes which no longer represe ...

³ Query processing: Factorizing complex predicates in queries to exploit inde Surajit Chaudhuri, Prasanna Ganesan, Sunita Sarawagi

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Decision-support applications generate queries with complex predicates. We squery expressions exposes significant opportunities for exploiting available in relaxing predicates in a complex condition to create possibilities for factoring. integration with existing query optimizers and support multiple optimization lebetween plan complexity and ...

4 XML indexing and compression: D(k)-index: an adaptive structural summar Qun Chen, Andrew Lim, Kian Win Ong

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To facilitate queries over semi-structured data, various structural summaries I summaries are derived directly from the data and serve as indices for evaluat or XML data. We introduce the D(k) index, an adaptive structural summary for Building on previous work, 1-index and A(k) index, the D(k)-index is also base However, as a generalization of the 1-index and A(k)

⁵ XML indexing and compression: ViST: a dynamic index method for queryin Haixun Wang, Sanghyun Park, Wei Fan, Philip S. Yu

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With the growing importance of XML in data exchange, much research has been facilities to extract data from structured XML documents. In this paper, we prosearching XML documents. By representing both XML documents and XML que show that querying XML data is equivalent to finding subsequence matches. U query into multiple sub-queries, and then joi...

⁶ Surrogate subsets: a free space management strategy for the index of a te: F. J. Burkowski

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This paper presents a new data structure and an associated strategy to be util retrieval systems. The paper starts by reviewing some of the goals that may t index and continues with a small survey of various current strategies. It then to as surrogate subsets discussing its appropriateness in the light of the specimplementation details are disc ...

7 Probabilistic document indexing from relevance feedback data

N. Fuhr, C. Buckley

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Based on the binary independence indexing model, we apply three new conce from relevance feedback data: Abstraction from specific terms and documents limited relevance information for parameter estimation. Flexibility of the repression new text analysis and knowledge-based methods in our approach as well as

8 Distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic query: Index structures and algorithms for querying distributed semantic querying distributed

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A technical infrastructure for storing, querying and managing RDFdata is a kedevelopment. Systems like Jena, Sesame or the ICS-FORTH RDF Suite are with applications. Currently, none of these systems supports the integrated querying consider this a major shortcoming since the semanticweb is distributed by nat architecture for querying distributed RDF repositorie ...

Keywords: RDF querying, index structures, optimization

Mobile data management: Exponential index: a parameterized distributed in Jianliang Xu, Wang-Chien Lee, Xueyan Tang

June 2004 Proceedings of the 2nd international conference on Mobile systems, a Full text available: pdf(381.15 KB)

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Wireless data broadcast has received a lot of attention from industries and act and energy conservation are two critical performance concerns in a wireless d the efficiency of energy consumption on mobile devices, traditional disk-based B\$^+\$-tree have been extended to index broadcast data on a wireless channel based on centralized tree structures. Most o ...

Keywords: data broadcast, energy conservation, index structure, mobile comp

¹⁰ Index scans using a finite LRU buffer: a validated I/O model

Lothar F. Mackert, Guy M. Lohman

September 1989 ACM Transac

ACM Transactions on Database Systems (TODS), Volume 14

Full text available: pdf(1.65 MB)

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Indexes are commonly employed to retrieve a portion of a file or to retrieve it accurate performance model of indexes is essential to the design, analysis, ar database systems, and particularly to database query optimization. Many prev problem of estimating the number of disk page fetches when randomly access stored on

¹¹ Session 12C: High-order entropy-compressed text indexes

Roberto Grossi, Ankur Gupta, Jeffrey Scott Vitter

January 2003 Proceedings of the fourteenth annual ACM-SIAM symposium on D

Full text available: pdf(1.14 M8)

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We present a novel implementation of compressed suffix arrays exhibiting new space occupancy for a given text (or sequence) of *n* symbols over an alphabet encoded by Ig|σ| bits. We show that compressed suffix while retaining full text indexing functionalities, such as searching any pattern |σ&verb ...

12 The automatic indexing system AIR/PHYS - from research to applications

P. Biebricher, N. Fuhr, G. Lustig, M. Schwantner, G. Knorz

May 1988 Proceedings of the 11th annual international ACM SIGIR conference on information retrieval

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Since October 1985, the automatic indexing system AIR/PHYS has been used data base of the Fachinformationsentrum Karlsruhe/West Germany. The texts English. The system of descriptors is prescribed. For the application of the AIF containing more than 600 000 word-descriptor relations reap. phrase-descript these relations have been obtained ...

¹³ Special system-oriented section: the best of SIGMOD '94: Estimating page LRU buffers

Arun Swami, K. Bernhard Schiefer

October 1995 The VLDB Journal — The International Journal on Very Large

Full text available: pdf(1.04 MB)

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We describe an algorithm for estimating the number of page fetches for a part. The algorithm obtains estimates for the number of page fetches for an index selected and the number of LRU buffers currently available. The algorithm has exactly once before any estimates are calculated. This initial phase, involving all the index entries and calculates ...

Keywords: LRU, estimation, index scan, query optimization

¹⁴ Index configuration in object-oriented databases

Elisa Bertino

July 1994 The VLDB Journal — The International Journal on Very Large D; Full text available: Ppdf(2.23 MB)

Additional Information: full citation, abstract, referen

In relational databases, an attribute of a relation can have only a single primit model complex objects. The object-oriented paradigm removes this difficulty I objects, which allows the value of an object attribute to be another object or a class consists of a set of attributes, and the values of the attributes are object the definition of a class fo ...

Keywords: index selection, physical database design, query optimization

¹⁵ Tuple sequences and lexicographic indexes

Serge Abiteboul, Seymour Ginsburg

May 1986

Journal of the ACM (JACM), Volume 33 Issue 3

Full text available: pdf(981.91 KB)

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The concept of a tuple sequence is introduced in order to investigate structure implementation. Analogs are presented for the relational operations of project decomposition problem for tuple sequences is considered. The lexicographical via the notion of (lexicographic) index. A sound and complete set of inference algorithmic questions related to ind ...

other auxiliary structures on tables stored as primary B⁺-trees
Eugene Inseok Chong, Jagannathan Srinivasan, Souripriya Das, Chuck Freiwald, Jagannath, Anh-Tuan Tran, Ramkumar Krishnan, Richard Jiang
November 2002 Proceedings of the eleventh international conference on Informat
Eull text available: pdf(63.19 KB)
Additional Information: full citation, abstract, reference

Any auxiliary structure, such as a bitmap or a B⁺-tree index, that refers to row (e.g., tables with clustered index in Microsoft SQL Server, or index-organized addresses would require updates due to inherent volatility of those addresses. mapping mechanism that 1) introduces a single mapping table, with each row

Keywords: bitmap indexes, mapping mechanism, primary B⁺-trees

¹⁷ Performance comparison of property map and bitmap indexing

Ashima Gupta, Karen C. Davis, Jennifer Grommon-Litton

November 2002 Proceedings of the 5th ACM international workshop on Data Wa Full text available: Additional Information: full citation, abstract, reference

A data warehouse is a collection of data from different sources that supports a allows fast access to individual attribute values that are needed to answer a q attribute for all tuples separately, as bit strings. A Property Map (PMap) is a m pre-computes attribute expressions, called properties, for each tuple and store LD02]. This paper compares t ...

Keywords: bitmap index, data warehouse, performance study

¹⁸ Physical database design: Applying approximate order dependency to redu Jirun Dong, Richard Hull

June 1982 Proceedings of the 1982 ACM SIGMOD international conference on M Full text available: pdf(1.22 MB)

Additional Information: full citation, abstract, referen-

The recently introduced notion of order dependency in the relational model is order dependency is satisfied in an approximate way. Two fundamental types distinguished and analyzed. It is shown for both types that such approximate be applied to substantially reduce indexing space without significantly increas

19 Regular contributions: An improved index function for (D)FCM predictors Martin Burtscher

June 2002 ACM SIGAR
Full text available: \$\mathbb{B}\$ pdf(619.97 KB)

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The most promising value predictors to date are the finite context method pre thereof, the differential finite context method predictor. Both predictors compusecond level is a function of the content of the first level. This index function i However, our research shows that the currently used select-fold-shift-xor function sequences of values. For example, it does ...

²⁰ Optimal indexing using near-minimal space

C. Heeren, H. V. Jagadish, L. Pitt

June 2003 Proceedings of the twenty-second ACM SIGMOD-SIGACT-SIGART symposystems

Full text available: pdf(208.43 KB)

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We consider the index selection problem. Given either a fixed query workload on possible future queries, and a bound B on how much space is available to t collection of indices for which the average query response time is minimized. peformance bounds.Let m be the number of queries in the workload. We show collection of indices using space ...

Results 1 - 20 of 200

Result page: 1 2 3 4 5 6 7

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Jan Vitek, R. Nigel Horspool
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...solution has O(1) query time. Unfortunately it uses O(nM) table space, which is prohibitively large for existing hierarchies [D93, M95, V95, FM96, MM96]. To cope with this, all known practical solutions use the observation that many queries return NIL. Thus they employ various...

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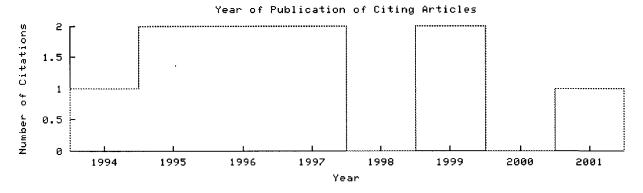
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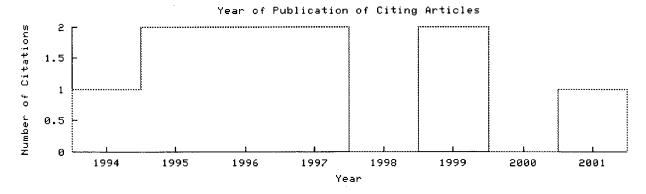
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A Model for Transparent Distribution using Java - Milton (1997) (Correct) to garbage collection. Keywords Java, Java virtual machine, virtual machine, distribution. whether the Sun JVM does this. Dynamic dispatch tables similar to C81 are used, and pointers to safe and dynamic. The Java compiler will produce a .class file for each Java class, which contains all of www.sd.monash.edu.au/research/publications/1997/TR97-14.ps

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Why Aren't Operating Systems Getting Faster As Fast as Hardware? - Ousterhout (1990) (Correct) (158 citations) However, many parts of the kernel, including the virtual memory system and interprocess communication, for hardware and software designers. 2. Hardware Table 1 lists the ten hardware configurations used for not improve dramatically in future machines, some classes of applications may be limited by memory www.cs.berkeley.edu/projects/sprite/papers/os-benchmark.ps

A Comparative Study of Inductive Logic Programming Methods.. - Cohen, Devanbu (1997) (Correct) (2 citations) hierarchy. These relations, described in Table 1, were then extracted from the source code using (ILP) methods for predicting fault density in Cclasses. In this problem, each training example is a www.research.att.com/~prem/ml97.ps

Learning Dextrous Manipulation Skills for Multifingered Robot.. - Fuentes, Nelson (1996) (Correct) Arbib et al. 1] introduced the concept of virtual fingers as a model for task representation at The goal of the learning system is to build a table, indexed by goals and objects that gives as ftp.cs.rochester.edu/pub/u/nelson/1996_us_japan.ps.gz

Pvm 3 User's Guide And Reference Manual - Geist, Beguelin, Dongarra. (1994) (Correct) (308 citations) installed and used. PVM stands for Parallel Virtual Machine. It is a software package that allows a : 44 10.2.2 Host Table :

www4.informatik.uni-erlangen.de/~tsthiei/Papers/pvm-ug.ps.gz

Fast Prolog with an Extended General Purpose Architecture - Holmer, Sano, Carlton... (1994) (Correct) (6 citations) ramifications of this on the word format and the virtual memory system. Then we present the interface cache data interface cache instruction table segment on chip 26 Figure 1: Block Diagram of the pipeline. Hardware interlocks are provided for both load and store delays. If data from a load instruction www.info.ucl.ac.be/people/PVR/bam.ps

Taking Steps: The Influence of a Walking Technique on .. - Slater, Usoh, Steed (1995) (Correct) (7 citations) Influence of a Walking Technique on Presence in Virtual Reality 1 Mel Slater, Martin Usoh, Anthony the movement was. The questions are shown in Table 1, with results given for both experiments (the and consequences. Whether or not a system can be classified as immersive, depends crucially on the www.cs.ucl.ac.uk/staff/ucacmxu/Papers/tochi.ps.gz

Higher Harmonics Beam Loading Compensation For A Broad Band.. - Saito Fujieda (1998) (Correct) the plates of high-power tubes such as 150 -300 kW class tetrodes. From the viewpoint of the scale of the Higher Harmonics Beam Loading Compensation For A Broad Band Ma-Loaded Rf Beam Loading Compensation For A Broad Band Ma-Loaded Rf Cavity K. Saito 1 ,M. Fujieda, Y. Mori, H. hadron.tanashi.kek.jp/jhl/apac98/50010.ps

OODB Bulk Loading Revisited: The Partitioned-List Approach - Wiener, Naughton (1995) (Correct) (7 citations)

B tree The basic algorithm requires enough virtual memory to store the id map. However, it accesses map is stored as an in-memory open addressing hash table hashed on surrogate. It is kept separate from the data quickly. We categorize data sets into three classes of sizes, relative to the amount of physical www-db.stanford.edu/~wiener/papers/partitioned-list.ps

Prediction of Crack Growth under Variable-Amplitude Loading in... - Newman Jr (1997) (Correct) of Crack Growth under Variable-Amplitude Loading in Thin-Sheet 2024-T3 Aluminum Alloys J. C. model to study fatigue crack growth under various load histories. The model was based on the Dugdale crack growth rates under constant-amplitude loading and then used to predict crack growth under techroports.larc.nasa.gov/pub/techroports/larc/1997/mtg/NASA-97-iceaf-jcn.ps.Z

<u>Dynamic Registration Correction in Video-Based Augmented... - Bajura, Neumann (1995) (Correct) (15 citations)</u> uneumann@cs.usc.edu KEYWORDS: Augmented Reality, **Virtual** Reality, Registration. ABSTRACT This paper usc.edu/pub/graphics/papers/cga.ps

Persistence and Migration for C++ Objects - Shapiro, Gautron, Mosseri (1989) (Correct) (30 citations) operating system techniques, such as paged virtual memory, untyped storage, and demand loading, allocating an entry for it in the object descriptor table. Thus, inheritance is enough to implement easy intervention. The key elements are dynamic classes, a generalized pointer type which allows to ttp.inria.fr/INRIA/Projects/SOR/papers/1989/PrsC++_ecoop89.ps.gz

<u>Visual Cues for Perceiving Distances - From Objects To (Correct)</u>
on the perception of the distance between a fixed **virtual table** and an approaching block in a **virtual** perception of the distance between a fixed **virtual table** and an approaching block in a **virtual** www.cs.utah.edu/npr/papers/Hu_cues.pdf

TupleRank: Ranking Discovered Content in Virtual Databases - Berlin, Motro (2002) (Correct)
TupleRank: Ranking Discovered Content in Virtual Databases Jacob Berlin Amihai Motro Information
Consequently, the rows in a discovered virtual table have mixed assurance levels, with some rows being
Typical data integration systems may be classified at best as semi-automatic [4, 6, 8, 9]
www.ise.gmu.edu/techrep/2002/02_03.pdf

Dynamic Optimistic Interprocedural Analysis: a Framework...- Pechtchanski, Sarkar (2001) (Correct) (1 citation) are implemented as part of the IBM Jalape~no Java Virtual Machine. Our experimental results for the Rule[is the set of rules de ned in Appendix A (Tables 7-11)These rules describe the impact of each is designed to be used in the context of dynamic class loading and dynamic compilation, and includes cs1.cs.nyu.edu/~pechtcha/pubs/copsle01.ps

The Spotless System: Implementing a Java^TM System for... - Antero Taivalsaari Bill (1999) (Correct) the Spotless system, which is based on a new Java virtual machine developed at Sun Labs and targeted efficient internal representations (such as method tables and field tables to perform efficient runtime supporting the full bytecode set and dynamic class loading. In this report we describe the design www.sun.com/research/techrep/1999/smli_tr-99-73.ps

A Case For Sealing Classes In Java - Biberstein, Sreedhar, Zaks (2002) (Correct)

loading to seamlessly migrate objects between virtual machines without having to distribute the of virtual dispatch load the virtual dispatch table (also called vtable)obtain the appropriate A Case For Sealing Classes In Java Marina Biberstein Vugranam C.

www.haifa.il.ibm.com/info/ple/papers/class.pdf

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Karel Driesen, Urs Hölzle

October 1995 ACM SIGPLAN Notices, Proceedings of the tenth annual conference systems, languages, and applications, Volume 30 Issue 10

Full text available: pdf(1.81 MB)

Additional Information: full citation, abstract, references, ci

Row displacement dispatch tables implement message dispatching for dynami overhead of one memory indirection plus an equality test. The technique is sir which is, however, restricted to statically typed languages like C++. We show of dispatch tables to approximately the same size as virtual function tables. T multiple inheritance. Experiments on a numbe ...

² A fast method dispatcher for compiled languages with multiple inheritance R. Dixon, T. McKee, M. Vaughan, P. Schweizer

September 1989 ACM SIGPLAN Notices , Conference proceedings on Object-oriente applications, Volume 24 Issue 10

Full text available: Ddf(460.71 KB)

Additional Information: full citation, abstract, references,

This paper addresses the problem of an efficient dispatch mechanism in an obinheritance. The solution suggested is a direct table indexed branch such as is assignments are made using a coloring algorithm. The method is applicable to (with multiple inheritance added) and Eiffel, and in a slightly slower form to le Objective C.

³ Selector table indexing & sparse arrays

Karel Driesen

October 1993 ACM SIGPLAN Notices, Proceedings of the eighth annual conference systems, languages, and applications, Volume 28 Issue 10

Full text available: pdf(1.30 MB)

Additional Information: full citation, references, citings

4 A model for implementing an object-oriented design without language exter Jennifer Hamilton

January 1996

ACM SIGPLAN Notices, Volume 31 Issue 1

Full text available: pdf(639.62 KB)

Additional Information: full citation, abstract,

This paper proposes a means of implementing an object-oriented design in predirectly support the object-oriented paradigm, without requiring language extending, dynamic binding, polymorphism and single inheritance through a typel Smalltalk. Effecient dynamic method binding is achieved through direct lookul incremental graph-colouring algorithm. The met ...

⁵ Two-directional record layout for multiple inheritance

William Pugh, Grant Weddell

June 1990 ACM SIGPLAN Notices, Proceedings of the ACM SIGPLAN 1990 confere and implementation, Volume 25 Issue 6

Full text available: pdf(906.27 KB)

Additional Information: full citation, abstract, references,

Much recent work in polymorphic programming languages allows subtyping ar such systems, we would like to extract a field from a record with the same eff subtyping and multiple inheritance. Methods currently used make field extract a significant overall performance slowdown. We describe a record layout algor offset to each field n ...

6 Optimizing method search with lookup caches and incremental coloring

Pascal André, Jean-Claude Royer

October 1992 ACM SIGPLAN Notices, conference proceedings on Object-oriented papplications, Volume 27 Issue 10

Full text available: pdf(1,70 MB)

Additional Information: full citation, references, citings

Keywords: Smalltalk-80, coloring, efficiency, lookup caches, method search, o statistics

Incremental algorithms for dispatching in dynamically typed languages Yoav Zibin, Joseph (Yossi) Gil

January 2003 ACM SIGPLAN Notices, Proceedings of the 30th ACM SIGPLAN-SIGA programming languages, Volume 38 Issue 1

Full text available: pdf(444.76 K8)

Additional Information: full citation, abstract, referen-

A fundamental problem in the implementation of object-oriented languages is structure, i.e., support for quick response to dispatching queries combined wit hierarchy and the method families. Previous theoretical algorithms tend to be large hidden constant. In contrast, successful practical heuristics, including Vitables (CT) [16] designed ...

Keywords: CT, dispatch, dynamic-typing, hierarchy, incremental, message

8 Subtypes vs. where clauses: constraining parametric polymorphism Mark Day, Robert Gruber, Barbara Liskov, Andrew C. Myers October 1995 ACM SIGPLAN Notices, Proceedings of the tenth annual conference systems, languages, and applications, Volume 30 Issue 10

Full text available: pdf(1.56 MB)

Additional Information: full citation, abstract, references, ci

All object-oriented languages provide support for subtype polymorphism, whic works for families of related types. There is also a need, however, to write corno real family relationship. To satisfy this need a programming language must polymorphism, allowing for types as parameters to routines and types. We ship programming and separate compilation there mus ...

Fast algorithms for compressed multimethod dispatch table generation Eric Dujardin, Eric Amiel, Eric Simon January 1998 ACM Transactions on Programming Languages and Systems (TOPL)

Full text available: pdf(682.21 KB)

Additional Information: full citation, abstract, references,

The efficiency of dynamic dispatch is a major impediment to the adoption of n languages. In this article, we propose a simple multimethod dispatch scheme This scheme is applicable to any object-oriented language using a method pre monotonous property (e.g., as Cecil and Dylan) and guarantees that dynamic the latter being a major requirement for so ...

Keywords: dispatch tables, late binding, multimethods, optimization, pole type

¹⁰ Fast algorithm for creating space efficient dispatching tables with applicatic Yoav Zibin, Joseph Yossi Gil

November 2002 ACM SIGPLAN Notices, Proceedings of the 17th ACM SIGPLAN con programming, systems, languages, and applications, Volume 37 1

Full text available: pdf(312.23 KB)

Additional Information: full citation, abstract, refer

The dispatching problem can be solved very efficiently in the single-inheritance how to extend one such solution to the multiple-inheritance \sim (MI) setting. This to the space requirement by a small factor of κ This factor can be thou the topology of the inheritance hierarchy.On a data set of \sim 35 hierarchies tota dispatching data structure, based on a ...

11 Bidirectional object layout for separate compilation

Andrew C. Myers

October 1995 ACM SIGPLAN Notices, Proceedings of the tenth annual conference systems, languages, and applications, Volume 30 Issue 10

Full text available: pdf(1.87 MB)

Additional Information: full citation, abstract, references, ci

Existing schemes for object layout and dispatch in the presence of multiple in waste space and are slower than systems with single inheritance. This paper can new scheme for object layout that produces smaller objects and faster meth automatically optimizing particular uses of multiple inheritance. The bidirectio programming language Theta, and ...

12 Special issue on persistent object systems: Tigukat: a uniform behavioral o M. Tamer Özsu, Randal Peters, Duane Szafron, Boman Irani, Anna Lipka, Adrian July 1995 The VLDB Journal — The International Journal on Very Large Da Full text available: pdf(2.78 MB) Additional Information: full citation, abstract, referen

We describe the TIGUKAT objectbase management system, which is under departabase Systems Research at the University of Alberta. TIGUKAT has a nove characteristics include a purely behavioral semantics and a uniform approach including types, classes, collections, behaviors, and functions, as well as metawell-defined behavior. In this way, the model abstr ...

Keywords: database management, objectbase management, persistent storag

¹³ Optimizing multi-method dispatch using compressed dispatch tables

Eric Amiel, Olivier Gruber, Eric Simon

October 1994 ACM SIGPLAN Notices, Proceedings of the ninth annual conference systems, language, and applications, Volume 29 Issue 10

Full text available: pdf(1.83 MB)

Additional Information: full citation, abstract, references, ci

Optimizing method dispatch is a central issue in object-oriented language imp scheme, used for example by C++, is the only implementation of method disperformance. This property is the main asset of dispatch tables and a major re However, the major drawback of dispatch tables is the space they require. Replace studied in the case ...

14 Efficient implementation of Java interfaces: Invokeinterface considered har Bowen Alpern, Anthony Cocchi, Stephen Fink, David Grove

October 2001 ACM SIGPLAN Notices, Proceedings of the 16th ACM SIGPLAN confessystems, languages, and applications, Volume 36 Issue 11

Full text available: pdf(779.52 KB)

Additional Information: full citation, abstract, references,

Single superclass inheritance enables simple and efficient table-driven virtual method table dispatch does not handle multiple inheritance and interfaces. The misimpression that interface method dispatch is inherently inefficient. This parameter implementation techniques, Java interfaces need not be a source of significant.

¹⁵ Extraneous factors in the Dixon resultant formulation

Deepak Kapur, Tushar Saxena

July 1997 Proceedings of the 1997 international symposium on Symbolic and alge

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Additional Information: full citation, references, citings, index ten

¹⁶ Sparsity considerations in Dixon resultants

Deepak Kapur, Tushar Saxena ---

July 1996 Proceedings of the twenty-eighth annual ACM symposium on Theory of

Full text available: pdf(864.89 KB)

Additional Information: full citation, references, citings, index terms

¹⁷ Algebraic and geometric reasoning using Dixon resultants

Deepak Kapur, Tushar Saxena, Lu Yang

August 1994 Proceedings of the international symposium on Symbolic and alge

Full text available: pdf(972.13 KB)

Additional Information: full citation, abstract, references.

Dixon's method for computing multivariate resultants by simultaneously elimi method is found to be quite restrictive because often the Dixon matrix is singitientically yielding no information about solutions for many algebraic and geomethod for the case when the Dixon matrix is singular, but satisfies a condition based on the proposed extension f ...

¹⁸ On the efficiency and optimality of Dixon-based resultant methods

Arthur D. Chtcherba, Deepak Kapur

July 2002 Proceedings of the 2002 international symposium on Symbolic and al Full text available: pdf(233.57 KB) Additional Information: full citation, abstract, references,

Structural conditions on polynomial systems are developed for which the Dixo compute exact resultants. For cases when this cannot be done, the degree of operator computed using the Dixon-based methods is typically minimal. A me based on a combination of Sylvester-dialytic and Dixon methods is proposed. construction often leading to exact result ...

Keywords: BKK bound, Bezoutians, Dixon method, Sylvester-type matrices, di multiplier matrices, resultant, support

19 Efficient multiple and predicated dispatching

Craig Chambers, Weimin Chen

October 1999 ACM SIGPLAN Notices, Proceedings of the 14th ACM SIGPLAN confessystems, languages, and applications, Volume 34 Issue 10

Full text available: pdf(2.41 M8)

Additional Information: full citation, abstract, references, ci

The speed of message dispatching is an important issue in the overall perform have developed an algorithm for constructing efficient dispatch functions that single dispatching, multiple dispatching, and predicate dispatching. Our algorigeneral predicate dispatching model (which generalizes single dispatching, muclassifiers, and patter ...

²⁰ Clausal temporal resolution

Michael Fisher, Clare Dixon, Martin Peim

January 2001

ACM Transactions on Computational Logic (TOCL), Volume 2 I

Full text available: pdf(277.56 KB)

Additional Information: full citation, abstract, references, citir

In this article, we examine how clausal resolution can be applied to a specific, namely discrete linear temporal logic. Thus, we first define a normal form for arbitrary temporal formulae can be translated into the normal form, while prenovel resolution rules that can be applied to formulae in this normal form, pro the correctness and complexity ...

Keywords: resolution, temporal logic, theorem proving

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